

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 13-18 have been amended.

This amendment changes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claims 1-18 remain pending in the application.

Claim Rejections under 35 U.S.C. § 101

Claims 13-18 were rejected under 35 U.S.C. § 101 for being directed to non-statutory subject matter. In response, Applicant amends claims 13-18 to recite a “computer program embodied in a computer readable medium.” Accordingly, Applicant requests that the rejection be withdrawn and claims 13-18 be allowed.

Claim Rejections under 35 U.S.C. § 103

Claims 1-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 20020039886 (“Doi”) in view of U.S. Publication No. 20010019952 (“Ishida”). In response, Applicant respectfully traverses the rejection for the reasons set forth below.

Applicant relies on MPEP § 2143, which requires that all the claim limitations be considered. Considering all the claim limitations as required by MPEP § 2143.03, the cited references do not disclose, teach or suggest all the claim limitations. *See In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Here, Applicant submits that Doi and Ishida, alone or in combination, do not disclose teach or suggest each and every element of independent claims 1, 4, 7 and 10. Independent claim 1 is directed to a radio cell station apparatus. Independent claim 4 is directed to a personal station. Independent claim 7 is directed to a method of controlling a reference signal

performed by a radio cell station apparatus. Independent claim 10 is directed to a method of controlling a reference signal performed by a personal station.

For example, in addition to other patentable features, independent claim 1 includes a “multiplexed connection number detection means for detecting number of multiplexed connections of the personal stations establishing space division multiple access” and “reference signal allocation means for allocating, by switching the reference signals that have been allocated to the personal stations establishing space division multiple access respectively prior to change in the number of multiplexed connections to reference signals capable of maintaining communication quality even after the number of multiplexed connections is changed, the switched reference signals to said plurality of personal stations respectively, when change in the number of multiplexed connections is detected in said multiplexed connection number detection means.” Similarly, in addition to other patentable features, independent claim 4 includes “a means for receiving a request for switching a reference signal from said radio cell station apparatus in accordance with change in the number of multiplexed connections of the personal stations establishing space division multiple access and means for switching the reference signal to a reference signal capable of maintaining communication quality even after the number of multiplexed connections is changed and transmitting a response to the request for switching to said radio cell station apparatus. Independent claims 7, 10, 13 and 16 contain similar patentable limitations.

Accordingly, the claimed invention provides a radio cell station apparatus capable of estimating with high accuracy a synchronous position of a signal for each user regardless of change in the number of users that establish multiple access as well as separating and extracting a signal of a desired user in a stable manner.

In contrast, Doi and Ishida fail to disclose, teach or suggest each and every element of independent claims 1, 4, 7, 10, 13 and 16. Doi is directed to a radio communication system and Ishida is directed to a wireless base station and wireless phone. The Office Action asserts that Doi teaches the radio base station path division multiplexes a maximum of four signals. However, Doi does not disclose a “multiplexed connection number detection means for detecting number of multiplexed connections of the personal stations establishing space

division multiple access.” Ishida fails to cure the deficiencies of Doi. The Office Action asserts that Ishida discloses allocation channel assignment notification contains the associated UW and notifies that the link channel has been assigned to the mobile station. However, Ishida does not disclose, teach or suggest a “reference signal allocation means for allocating, by switching the reference signals that have been allocated to the personal stations establishing space division multiple access respectively prior to change in the number of multiplexed connections to reference signals capable of maintaining communication quality even after the number of multiplexed connections is changed, the switched reference signals to said plurality of personal stations respectively, when change in the number of multiplexed connections is detected in said multiplexed connection number detection means.”

In summary, the subject matter claimed in independent claims 1, 4, 7, 10, 13 and 16 is directed toward solving a different problem than that of Doi and Ishida. Both Doi and Ishida have an object of preventing mutual interferences between a plurality of mobile terminal devices that are multi-connected to a radio base station in the same cell and merely disclose that different unique words are designated for respective terminals when a request for connection is given, and the unique word designated for one terminal is fixed in subsequent communication. As a result, Doi and Ishida do not mention or address the problem addressed by the subject matter claimed in independent claims 1, 4, 7, 10, 13 and 16. That is, that synchronous position estimation accuracy and interference canceling performance by an adaptive array may deteriorate due to subsequent change in the number of multiplexed connections.

Accordingly, Applicant request that the rejection be withdrawn and independent claims 1, 4, 7, 10, 13 and 16 be allowed. Further, dependent claims 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 17 and 18 depend from one of independent claims 1, 4, 7, 10, 13, or 16 and should be allowed for the reasons set forth above without regard to further patentable limitations contained therein.

Further, if this rejection of the claims is maintained, the examiner is respectfully requested to point out where the above-mentioned features are disclosed in Doi and Ishida.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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